

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

MCDR INSPECTION REPORT

Gandhinagar regional office

Mine file No : RAJ/UDP/PB-ZN ORE-1

Mine code : 34RAJ26002

- (i) Name of the Inspecting : **S012**) **H C SHARMA**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sh. Sandeep Rajput
Official with
Designation
- (iv) Date of Inspection : 25-JUL-19
- (v) Prev.inspection date : 13-FEB-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MOCHIA**
- (b) **Registration NO.** : **IBM/421/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Underground**
- (e) **Postal address**
- State : **RAJASTHAN**
- District : **UDAIPUR**
- Village : **ZAWAR**
- Taluka : **SARDA/GIRWA**
- Post office : **ZAWAR MINES**
- Pin Code : **313901**
- FAX No. : **0294-2412545**
- E-mail : **arun.mishra@vedanta.co.in**
- Phone : **0294-6604120**
- (f) **Police Station** : **Zawar**
- (g) **First opening date** : **01-APR-55**
- (h) **Weekly day of rest** : **MON**
2. **Address for** : **VILLAGE-ZAWAR**
correspondance : **DISTT-UDAIPUR**
3. (a) **Lease Number** : **RAJ1725**
- (b) **Lease area** : **816**
- (c) **Period of lease** : **80**
- (d) **Date of Expiry** : **31-MAR-30**
4. **Mineral worked** : **LEAD & ZINC ORE** **Main**

5. Name and Address of the

Lessee : Hindustan Zinc Ltd
 Yashad Bhavan Udaipur
 UDAIPUR RAJASTHAN
 Phone:
 FAX :

Owner : Sri Arun Mishra
 Yashad Bhavan, Udaipur
 Rajasthan UDAIPUR
 RAJASTHAN
 Phone:
 FAX : 0294-2412545

Agent : Shri Kishore S
 Mochia Pb_zn Mine, Post:
 Zawar, Udaipur Rajasthan
 UDAIPUR RAJASTHAN
 Phone:
 FAX : 0294-2412545

Mining Engineer

Name : Shri Balamurugan P, Full Time
 Qualification : BE Mining
 Appointment/ : 07-DEC-16
 Termination date

Geologist

Name : Sri Vivake Tyagi, Full Time
 Qualification : M.Sc. Geology
 Appointment/ : 15-DEC-17
 Termination date

Manager

Name : Sri Sanat Kumar
 Qualification : B.E. Mining
 Appointment/ : 01-DEC-20
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Mining Scheme rule 12 MCDR1988 01-JUL-02
 MP modif under 17(3) MCR 2016 17-MAY-19

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil at surface	
1b	Exploration over lease area for geological axis 1 or 2	25000m, No of hole 385	27640.45m, No of hole 336	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	EPMCPL- 225, HRREC-79 TDMA-72	EPMCPL-256.24824 HRREC-85.41913 TDMA-78.44	
1d	Balance area to be explored to bring Geological axis in 1 or 2	3.58 ha	1.63 ha	
1e	Balance reserve as on 01/04/20	111-1.072 MT 121-3.631 MT 122-1.262 MT 221-6.878 MT 222-1.257 MT 333-28.417 MT	111-1.072 MT 121-3.631 MT 122-1.262 MT 221-6.878 MT 222-1.257 MT 333-28.417 MT	
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable	The violation of rule 11 (1) had been issued for drilling less no of holes during previous inspection of mine dated 13/2/2019, and undersigned also agree to it.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	A total of 9000 m development was proposed in U/G faces.	A Total of 8881 m had been developed during 2018-19.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.	
2c	Stripping ratio or ore to OB ratio	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.	

2d	Quantity of topsoil generation in m3	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.
2e	Quantity of overburden generation in m3	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not applicable	The U/G mechanized method had been adopted for carrying out mining operations in the lease area which is best suited to the type of deposit.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Not applicable as it is U/G mine.	Not applicable	
3b	Quantity of ROM mineral production proposed	950000 T	949994 T during 2018-19.	
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	No proposal	Whole ROM is beneficiated & reject is in the form of Tailing reject.	
3e	Grade of mineral rejects generation and threshold value declared.	Not proposed.	Pb 0.26%, Zn - 0.87%.	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	Not applicable	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Froth floatation method	Froth floatation method	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Not applicable
3j	Provision of drilling and blasting in mineral benches	Not applicable	It is U/G mine & drilling & blasting at Faces & in Sttoping carried out
3k	Provision of mining machineries in mineral benches	Not applicable	Not applicable
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable as it is U/G mine	Not applicable
3m	Total area covered under excavation/pits	No proposal as being U/G mine	Not applicable
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable	Not applicable
3o	Total area put in use under different heads at the end of year	Mining-34.09 ha, Mineral storage-2ha, Ben. Plant-8.66 ha, Township-34.3 ha, Tailing pond-119.52 ha, Roads-9.68 ha, Infrastructure-53.66 ha, Waste dump-10.57 ha, Total-299.59 ha.	Mining-34.09 ha, Mineral storage-2ha, Ben. Plant-8.66 ha, Township-34.3 ha, Tailing pond-119.52 ha, Roads-9.68 ha, Infrastructure-53.66 ha, Waste dump-10.57 ha, Total-299.59 ha.
3p	Production of ROM mineral during the last five year period as applicable	2014-15 400000T, 2015-16 335000T, 2016-17 425000T, 2017-18 675000T, 2018-19 950000T	2014-15 275010 T, 2015-16 303315T, 2016-17 407800T, 2017-18 625169T, 2018-19 949994 T

3q General remarks of inspecting officers on method of mining etc. Not applicable The method of mining is suitable to the type of deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Not applicable as it is U/G mine, however dumping proposals of waste given.	Not applicable as it is U/G mine, however dumping proposals of waste given.	
4b	Location of topsoil, OB and mineral reject dumps	Not applicable	Not applicable as it is U/G mine	
4c	Number of dumps within lease area and outside of lease area	Not applicable as it is U/G mine	Not applicable as it is U/G mine	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable as it is U/G mine	Not applicable as it is U/G mine	
4e	Number of active and alive dumps.	Not applicable	Not applicable	
4f	Number of dead dumps.	Not applicable	Not applicable	
4g	Number of dumps established.	Not applicable	Not applicable	
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Not applicable	
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Not applicable	
4j	Number of settling ponds	No proposal	Not applicable	
4k	Specific comments of inspecting officer on waste dump management	Not applicable	The waste dumping has been carried out as per proposals.	

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine	
5b	Area under backfilling of mined out area	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine	
5d	Total area fully reclaimed and rehabilitated	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not applicable	Being Under ground mine there are no proposals of bacfilling.	

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yeas as per rule.	Submitted	
6b	Area available for rehabilitation (ha) .	Not applicable as it is U/G Mine	Not applicable as it is U/G Mine	
6c	afforestation done (ha).	4 ha for entire zawar group mines	75 ha for entire zawar group mines during 2018-19.	
6d	No. of saplings planted during the year	4000 nos in entire zawar group mines.	25000 nos in entire zawar group mines	
6e	Cumulative no .of plants	Not specified	425625 nos	
6f	Any other method of rehabilitation	No proposal	Not applicable	
6g	Cost incurred on watch and care during the year	No proposal	705422/- Rs.	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Not applicable
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	80556 (m3)	71500 (m3)
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not applicable	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not applicable	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	4000 no of plants	25000 nos of plants in entire zawar group of mines during 2018-19.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not applicable as it is U/G mine.	Not applicable as it is U/G mine.

6p	Compliance of environmental monitoring (core zone and buffer zone)	Monitoring as per MOEF Norms.	Regular monitoring carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable	PMCP compliance is satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	All ROM ore is being transported to Ore beneficiation plant located within lease area	All ROM ore is being transported to Ore beneficiation plant located within lease area	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Not applicable	Not applicable	
7c	Different grade of mineral sorted out at mines.	Not applicable	Not applicable	
7d	Any beneficiation process at mines	Yes	Beneficiation plant located within lease area.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not applicable	All ROM ore is being transported to Ore beneficiation plant located within lease area, there is no subgrade mineral generation.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Being U/G mine there is no generation of Top Soil.	Not applicable
8b	Concurrent use or storage of topsoil	Not applicable	Not applicable
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not applicable	Not applicable
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable	Not applicable
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No specified proposals made.	Not applicable
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Base line 372425 nos, Plants addition 8000 nos	Current Cumulative 425625 nos, Actual Addition 53200 nos
8g	Survival rate	80 %	80%
8h	Water sprinkling on roads to control airborne dust	Water sprinkling by tanker	Water sprinkling by tanker
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not applicable	The general aesthetic beauty in & around the mine is satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Not applicable	M.R. submitted up to July 2019 A.R. Submitted for 2018-19
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Eng.- Balamurgan P. Geologist- Vivek Tyagi, Manager-Sh. Radheshyam Deharia	Mining Eng.-Balamurgan P. Geologist- Vivek Tyagi, Manager-Sh. Radheshyam Deharia
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining-34.09 ha, Mineral storage-2 ha, Ben. Plant-8.66 ha, Township-34.3 ha, Tailing pond-119.52 ha, Roads-9.68 ha, Infrastructure -53.66 ha, Waste dump-10.57 ha	Mining-34.09 ha, Mineral storage-2 ha, Ben. Plant-8.66 ha, Township-34.3 ha, Tailing pond-119.52 ha, Roads-9.68 ha, Infrastructure-53.66 ha, Waste dump-10.57 ha
9d	Scrutiny of Annual return on afforestation	Afforestation done- 75 Ha (Gap Filling) No. of Saplings- 25000	Afforestation done- 75 Ha (Gap Filling) No. of Saplings- 25000
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	945365 MT Grade- Pb-0.45% Zn- 0.55%	945365 MT Grade- Pb-0.45% Zn- 0.55%
9f	Scrutiny of Annual return on ROM stock and/or graded ore	949994 T production, Closing stock- 1251 MT	949994 T production, Closing stock- 1251 MT
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The ex mine price & production cost given.	Found O. K.
9h	Scrutiny of Annual return on fixed assets	The net assets had been stated as 11255008491 Rs.	The net assets had been stated as 11255008491 Rs., which appears genuine.

9k	Scrutiny of Annual return on mining machineries	Details furnished	Found O. K.
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Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed		Show cause position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date :

(H C SHARMA)

Indian Bureau of Mines